

CLAIMS

1. A content processing apparatus comprising:

a list content receiving section that receives list
5 content providing location conditions in a list organized
by location conditions in which a reference destination
of location-dependent content, being content assigned
correspondence to geographical location information, is
compiled for each said location condition, sent from a
10 content communication server;

a location information receiving section that
receives location information sent from a terminal;

a content adaptation processing section that
generates area-specific list content comprising
15 information on said location-dependent content
corresponding to said location information by extracting
said list organized by location conditions in which are
provided said location conditions matching said location
information from said list content;

20 an area-specific list content output processing
section that outputs said area-specific list content to
said terminal; and

a content distribution section that receives from
said content communication server said
25 location-dependent content corresponding to said
location-dependent content distribution request from
said terminal, and distributes said location-dependent
content to said terminal.

2. The content processing apparatus according to claim 1, wherein:

5 said location information is a latitude coordinate value and a longitude coordinate value of an arbitrary point within an area stipulated beforehand; and

said location condition is a circular area stipulated by center latitude and longitude coordinate values and length of radius.

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3. The content processing apparatus according to claim 1, further comprising:

15 a menu content receiving section that receives menu content that is content composed of pairs of a category of said location-dependent content and a reference destination of list content corresponding to said category, sent from said content communication server;

20 a list content distribution request receiving section that receives a distribution request for said list content corresponding to a category selected by a user of said terminal, sent from said terminal; and

a list content distribution request transmitting section that transmits to said content communication server said list content distribution request;

25 wherein said list content receiving section receives requested said list content.

4. The content processing apparatus according to claim

1, further comprising:

a menu content receiving section that receives menu content that is content composed of pairs of a category of said location-dependent content and a reference
5 destination of list content corresponding to said category from a content broadcast server that performs data broadcasting;

a list content distribution request receiving section that receives a distribution request for said
10 list content corresponding to a category selected by a user of said terminal, sent from said terminal; and

a list content distribution request transmitting section that transmits to said content communication server said list content distribution request;

15 wherein said list content receiving section receives requested said list content.

5. The content processing apparatus according to claim 1, further comprising:

20 a general content receiving section that receives general content other than said location-dependent content; and

a general content processing section that outputs received said general content.

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6. The content processing apparatus according to claim 1, wherein:

said list content receiving section stores received

said list content; and

said content adaptation processing section, when new location information is acquired by said location information receiving section, generates said
5 area-specific list content comprising information on said location-dependent content corresponding to newly acquired said location information by extracting said list organized by location conditions in which are provided said location conditions matching said newly
10 acquired location information from stored said list content.

7. The content processing apparatus according to claim 6, wherein, when a distribution request for list content
15 that is identical to stored said list content is received, said list content is not again received anew from said content server, but stored content is used.

8. The content processing apparatus according to claim
20 1, wherein said content adaptation processing section:
creates a location condition list in which said location condition contained in said list content is extracted;

performs location determination processing that
25 compares said location condition recorded in said location condition list with said location information;
records a result of said location determination in said location condition list;

when new said location information is acquired,
obtains a new location determination result by performing
said location determination processing; and

by determining whether or not a previous said
5 location determination result and said new location
determination result match, determines whether or not
said location determination result has been updated.

9. The content processing apparatus according to claim
10 8, wherein:

in said location condition list there is recorded
a reference destination of said list content that is said
location condition's generation source; and

said content adaptation processing section outputs
15 location determination update information indicating
presence or absence of a change in said location
determination result, and when said location
determination update information indicates that there
is a change in said location determination result, also
20 outputs a reference destination of said list content.

10. The content processing apparatus according to claim
1, wherein:

said location information receiving section
25 receives said location information from another apparatus
via a network; and

said area-specific list content output processing
section outputs said area-specific list content to

another apparatus via a network.

11. A content processing apparatus comprising:

5 a list content storage section that stores list content providing location conditions in a list organized by location conditions in which a reference destination of location-dependent content, which is content assigned correspondence to geographical location information, is compiled for each said location condition;

10 a location information receiving section that receives location information sent from a terminal;

a content adaptation processing section that generates area-specific list content comprising information on said location-dependent content
15 corresponding to said location information by extracting said list organized by location conditions in which are provided said location conditions matching said location information from said list content;

20 an area-specific list content output processing section that outputs said area-specific list content to said terminal; and

a content distribution section that distributes said location-dependent content corresponding to said location-dependent content distribution request from
25 said terminal.

12. A content display apparatus comprising:

a location information acquisition section that

acquires location information at regular intervals;

a location information transmitting section that transmits said location information to the content processing apparatus according to claim 1;

5 an area-specific list content receiving section that receives said area-specific list content corresponding to said location information;

an area-specific list content display section that displays said area-specific list content;

10 a content distribution request section that selects arbitrary location-dependent content from said area-specific list content and requests distribution thereof;

a content receiving section that receives
15 distribution of said location-dependent content for which distribution is requested; and

a content display section that displays said location-dependent content.

20 13. A content display apparatus comprising:

a location information acquisition section that acquires location information at regular intervals;

a location information transmitting section that transmits said location information to the content
25 processing apparatus according to claim 9;

an area-specific list content receiving section that receives said area-specific list content corresponding to said location information;

a message receiving section that receives said location determination update information sent from said content processing apparatus;

a list update notification section that notifies
5 a user that said area-specific list content has been updated when said location determination update information indicates that there is a change in a location determination result;

a content display section that displays said
10 area-specific list content;

a content distribution request section that requests distribution of arbitrary location-dependent content selected from said area-specific list content; and

15 a content receiving section that receives said location-dependent content for which distribution is requested,

wherein said content display section displays said location-dependent content.

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14. The content display apparatus according to claim 13, wherein said list update notification section receives an area-specific list content update request from a user, and when an area-specific list content update
25 request is received from a user, extracts a reference destination of said list content accompanying said location determination update information, and transmits said content distribution request containing said list

content reference destination to said content processing apparatus.

15. The content display apparatus according to claim
5 13, wherein when said location determination update information indicates that there is a change in a location determination result, the latest information and update date and time of said area-specific list content are displayed.

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16. The content display apparatus according to claim 12, wherein said location information acquisition section acquires a latitude coordinate value and longitude coordinate value of a present position by means of GPS.

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17. The content display apparatus according to claim 14, wherein:

said content display section has a content display mode that displays said area-specific list content and
20 a map display mode enabling display of map data centered on a present position, and switching is possible between said content display mode and said map display mode; and

said list update notification section displays an update situation of said area-specific list content at
25 all times, and accepts an area-specific list content update request from a user at all times, irrespective of a status of said content display section.

18. The content display apparatus according to claim 17, wherein said content display section, when in map display mode, has a function that obtains a latitude coordinate value and longitude coordinate value of a point on a map specified by a user, and outputs these to said location information acquisition section.

19. The content display apparatus according to claim 18, wherein said location information acquisition section has a function that accepts input of address information from a user and obtains a latitude coordinate value and longitude coordinate value from input address information, or a function that acquires a latitude coordinate value and longitude coordinate value from said content display section in a state in which a map is displayed.

20. A content receiving terminal comprising:
a content processing apparatus that has:
a list content receiving section that receives list content providing location conditions in a list organized by location conditions in which a reference destination of location-dependent content, being content assigned correspondence to geographical location information, is compiled for each said location condition, sent from a content communication server;
a location information receiving section that receives location information;
a content adaptation processing section that

generates area-specific list content comprising
information on said location-dependent content
corresponding to said location information by extracting
said list organized by location conditions in which are
5 provided said location conditions matching said location
information from said list content;

an area-specific list content output processing
section that outputs said area-specific list content;
and

10 a content distribution section that receives from
said content communication server said
location-dependent content corresponding to said
location-dependent content distribution request, and
distributes said location-dependent content;

15 and a content display apparatus that has:

a location information acquisition section that
acquires location information at regular intervals;

a location information transmitting section that
transmits said location information to said content
20 processing apparatus;

an area-specific list content receiving section
that receives said area-specific list content
corresponding to said location information;

an area-specific list content display section that
25 displays said area-specific list content;

a content distribution request section that
requests distribution of arbitrary location-dependent
content selected from said area-specific list content;

a content receiving section that receives said location-dependent content for which distribution is requested; and

a content display section that displays said
5 location-dependent content.

21. A content adaptive distribution system comprising:

a content communication server that distributes
list content providing location conditions in a list
10 organized by location conditions in which a reference
destination of location-dependent content, being content
assigned correspondence to geographical location
information, is compiled for each said location
condition;

15 a content processing apparatus that has:

a list content receiving section that receives said
list content from said content communication server;

a location information receiving section that
receives location information;

20 a content adaptation processing section that
generates area-specific list content comprising
information on said location-dependent content
corresponding to said location information by extracting
said list organized by location conditions in which are
25 provided said location conditions matching said location
information from said list content;

an area-specific list content output processing
section that outputs said area-specific list content;

and

a content distribution section that receives from
said content communication server said
location-dependent content corresponding to said
5 location-dependent content distribution request, and
distributes said location-dependent content;

and a content display apparatus that has:

a location information acquisition section that
acquires location information at regular intervals;

10 a location information transmitting section that
transmits said location information to said content
processing apparatus;

an area-specific list content receiving section
that receives said area-specific list content
15 corresponding to said location information;

an area-specific list content display section that
displays said area-specific list content;

a content distribution request section that
requests distribution of arbitrary location-dependent
20 content selected from said area-specific list content;

a content receiving section that receives
distribution of said location-dependent content for which
distribution is requested; and

a content display section that displays said
25 location-dependent content;

wherein said content communication server
distributes said location-dependent content requested
by said content display apparatus.

22. A content adaptive distribution system comprising:
a content communication server that distributes
list content providing location conditions in a list
5 organized by location conditions in which a reference
destination of location-dependent content, being content
assigned correspondence to geographical location
information, is compiled for each said location
condition; and

10 the content receiving terminal according to claim
20;

wherein said content communication server
distributes said location-dependent content requested
by said content receiving terminal.

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23. The content adaptive distribution system according
to claim 21, wherein:

HTTP is used for communication between said content
server and said content processing apparatus; and

20 an HTTP-based protocol to which are added
specifications for reporting location information, a
response to location information notification, and data
broadcast reception information, is used for
communication between said content processing apparatus
25 and said content display apparatus.

24. A content processing apparatus comprising:

a broadcast processing section that receives

broadcast content distributed by a content broadcast server by means of carousel-type data broadcasting, and performs relay distribution of said broadcast content;

5 a communication processing section that receives general content distributed by a content communication server by means of communication, and performs relay distribution of said general content; and

a relay control section that, when a broadcast reception request message requesting relay distribution
10 of said broadcast content is received, controls said broadcast processing section, receives said broadcast content from said content broadcast server, and performs relay distribution of said broadcast content to a transmission source of said broadcast reception request
15 message, and when a general content distribution request message requesting relay distribution of said general content is received, controls said communication processing section, requests said content communication server to distribute said general content, and performs
20 relay distribution of said general content to a transmission source of said general content distribution request message.

25. The content processing apparatus according to claim
25 24, wherein said relay control section, when a location adaptive content distribution request message is received that requests said content communication server to distribute location adaptive content for which location

adaptive processing is possible using location information, controls said communication processing section, receives said location adaptive content from said content communication server, and distributes
5 content in which location adaptive processing has been performed using the latest location information on said location adaptive content to a transmission source of said location adaptive content distribution request message.

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26. The content processing apparatus according to claim 25, wherein:

said location adaptive content is content providing location conditions in a list organized by location
15 conditions in which a reference destination of content assigned correspondence to location information is compiled on an area-by-area basis; and

said location adaptive processing is processing that extracts a reference destination of content
20 corresponding to an area that contains a point indicated by said location information, and generates content in which extracted content reference destinations are compiled.

25 27. The content processing apparatus according to claim 26, wherein:

said general content distribution request message and said location adaptive content distribution request

message are HTTP GET messages with different file name extensions; and

5 said relay control section differentiates between said general content distribution request message and said location adaptive content distribution request message by means of said file name extensions.

28. The content processing apparatus according to claim 27, wherein:

10 said communication processing section performs parallel processing of a plurality of said general content distribution request messages; and

15 said location adaptive content distribution request messages undergo serial processing according to order of reception.

29. The content processing apparatus according to claim 24, wherein said broadcast processing section stores said broadcast content, and when storage is completed, stops data broadcast reception and distributes stored said broadcast content to a transmission source of said broadcast reception request message by means of PUSH-type stream distribution using communication.

25 30. The content processing apparatus according to claim 28, wherein said broadcast processing section stops distribution after repeating distribution of said broadcast content by means of PUSH-type stream

distribution using communication a predetermined number of times.

31. The content processing apparatus according to claim
5 24, wherein said broadcast processing section stores said broadcast content, and when storage is completed, transmits a resource notification message containing a content identifier indicating a location of stored said broadcast content to a transmission source of said
10 broadcast reception request message.

32. The content processing apparatus according to claim
31, wherein said content identifier is a URL indicating stored broadcast content.
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33. The content processing apparatus according to claim
31, wherein said communication processing section:
when said general content distribution request
message or said location adaptive content distribution
20 request message requests distribution of stored said general content or said location adaptive content, distributes stored said general content or location adaptive content to a transmission source of said general content distribution request message or said location
25 adaptive content distribution request message; and

when said general content distribution request
message or said location adaptive content distribution
request message requests distribution of said general

content or said location adaptive content that is not stored, receives that general content or location adaptive content from said content communication server, and distributes that general content or location adaptive content to a transmission source of said general content distribution request message or said location adaptive content distribution request message.

34. A content display apparatus comprising:

10 a control section that receives broadcast content from a content broadcast server that distributes said broadcast content by means of carousel-type data broadcasting, and sends to the content processing apparatus according to claim 24 a broadcast reception request message requesting relay transfer of said broadcast content;

a broadcast receiving section that receives said broadcast content transmitted via said content processing apparatus; and

20 a browser section that has a function of receiving general content from a content communication server that distributes said general content by means of communication, and transmitting to said content processing apparatus a general content distribution request message requesting relay transfer of said general content, and a function of displaying said general content received from said content communication server via said content processing apparatus.

35. The content display apparatus according to claim 34, further comprising a location information acquisition section that acquires location information at regular intervals;

wherein said control section transmits said location information to said content processing apparatus, and receives content subjected to location adaptive processing using said location information from said content processing apparatus.

36. The content display apparatus according to claim 35, wherein:

said broadcast receiving section has, in addition to a data broadcast receiving function, a function of receiving content transmitted by means of PUSH-type stream distribution using communication; and

said control section, when broadcast content is received from said content broadcast server via said content processing apparatus, instructs said broadcast receiving section to receive broadcast content by means of communication.

37. The content display apparatus according to claim 36, wherein said broadcast receiving section receives content only once when identical content is transmitted repeatedly by means of PUSH-type stream distribution using communication.

38. The content display apparatus according to claim 37, wherein said reception control section receives a resource notification message containing a content
5 identifier that indicates a location of said broadcast content, and when said resource notification message is received, instructs said browser section to acquire said broadcast content indicated by said content identifier.

10 39. The content display apparatus according to claim 38, wherein:

in said resource notification message is written a URL of said broadcast content stored in said content processing apparatus;

15 said control section, when said resource notification message is received, instructs said browser section to acquire said broadcast content indicated by said URL; and

said browser section acquires said broadcast
20 content indicated by said URL by means of an HTTP GET message.

40. A content receiving terminal comprising:

a content processing apparatus that has:

25 a broadcast processing section that receives broadcast content distributed by a content broadcast server by means of carousel-type data broadcasting, and performs relay distribution of said broadcast content;

a communication processing section that receives general content distributed by a content communication server by means of communication, and performs relay distribution of said general content; and

5 a relay control section that, when a broadcast reception request message requesting relay distribution of said broadcast content is received, controls said broadcast processing section, receives said broadcast content from said content broadcast server, and performs
10 relay distribution of said broadcast content to a transmission source of said broadcast reception request message, and when a general content distribution request message requesting relay distribution of said general content is received, controls said communication
15 processing section, requests said content communication server to distribute said general content, and performs relay distribution of said general content to a transmission source of said general content distribution request message;

20 and a content display apparatus that has:

 a control section that receives broadcast content from a content broadcast server that distributes said broadcast content by means of carousel-type data broadcasting, and sends to said content processing
25 apparatus a broadcast reception request message requesting relay transfer of said broadcast content;

 a broadcast receiving section that receives said broadcast content transmitted via said content processing

apparatus; and

a browser section that has a function of receiving general content from a content communication server that distributes said general content by means of communication, and transmitting to said content processing apparatus a general content distribution request message requesting relay transfer of said general content, and a function of displaying said general content received from said content communication server via said content processing apparatus.

41. A content adaptive distribution system comprising:

a content broadcast server that distributes broadcast content by means of carousel-type data broadcasting;

a content communication server that distributes general content by means of communication;

a content processing apparatus that has:

a broadcast processing section that receives broadcast content distributed by said content broadcast server by means of carousel-type data broadcasting, and performs relay distribution of said broadcast content;

a communication processing section that receives general content distributed by said content communication server by means of communication, and performs relay distribution of said general content; and

a relay control section that, when a broadcast reception request message requesting relay distribution

of said broadcast content is received, controls said broadcast processing section, receives said broadcast content from said content broadcast server, and performs relay distribution of said broadcast content to a transmission source of said broadcast reception request message, and when a general content distribution request message requesting relay distribution of said general content is received, controls said communication processing section, requests said content communication server to distribute said general content, and performs relay distribution of said general content to a transmission source of said general content distribution request message;

and a content display apparatus that has:

15 a control section that receives broadcast content from said content broadcast server that distributes said broadcast content by means of carousel-type data broadcasting, and sends to said content processing apparatus a broadcast reception request message requesting relay transfer of said broadcast content;

20 a broadcast receiving section that receives said broadcast content transmitted via said content processing apparatus; and

a browser section that has a function of receiving 25 general content from said content communication server that distributes said general content by means of communication, and transmitting to said content processing apparatus a general content distribution

request message requesting relay transfer of said general content, and a function of displaying said general content received from said content communication server via said content processing apparatus;

5 wherein said content communication server distributes said location adaptive content requested by said content display apparatus.

42. A content relay distribution method comprising:

10 receiving list content providing location conditions in a list organized by location conditions in which a reference destination of location-dependent content, being content assigned correspondence to geographical location information, is compiled for each
15 said location condition, sent from a content communication server;

 receiving location information sent from a terminal;

 generating area-specific list content comprising
20 information on said location-dependent content corresponding to said location information by extracting said list organized by location conditions in which are provided said location conditions matching said location information from said list content;

25 outputting said area-specific list content to said terminal;

 receiving from said content communication server said location-dependent content corresponding to said

location-dependent content distribution request from
said terminal that receives said area-specific list
content; and

5 distributing said location-dependent content to
said terminal.

43. A content receiving method comprising:

acquiring location information;

10 transmitting said location information to another
apparatus;

receiving said area-specific list content
corresponding to said location information transmitted
by means of the content relay distribution method
according to claim 42;

15 displaying said area-specific list content;
outputting a distribution request for arbitrary
location-dependent content selected by a user from said
area-specific list content;

20 receiving said location-dependent content for which
distribution is requested; and

displaying said location-dependent content.

44. A content processing method comprising:

25 receiving a broadcast reception request message
requesting relay distribution of broadcast content;

when said broadcast reception request message is
received, receiving said broadcast content from a content
broadcast server;

performing relay distribution of said broadcast content to a transmission source of said broadcast reception request message;

receiving a general content distribution request
5 message requesting relay distribution of general content;

when said general content distribution request message is received, requesting said content communication server to distribute said general content;
and

10 performing relay distribution of said general content received from said content communication server to a transmission source of said general content distribution request message.

15 45. A content display method comprising:

receiving broadcast content from a content broadcast server that distributes said broadcast content by means of carousel-type data broadcasting;

20 sending a broadcast reception request message requesting relay transfer of said broadcast content;

receiving said broadcast content transmitted in response to said broadcast reception request message;

receiving general content from a content communication server that distributes said general
25 content by means of communication;

transmitting a general content distribution request message requesting relay transfer of said general content; and

displaying said general content received from said content communication server.

46. A program that causes a computer to:

5 receive list content providing location conditions
in a list organized by location conditions in which a
reference destination of location-dependent content,
being content assigned correspondence to geographical
location information, is compiled for each said location
10 condition, sent from a content communication server;
 receive location information sent from a terminal;
 generate area-specific list content comprising
information on said location-dependent content
corresponding to said location information by extracting
15 said list organized by location conditions in which are
provided said location conditions matching said location
information from said list content;
 output said area-specific list content to said
terminal;
20 receive from said content communication server said
location-dependent content corresponding to said
location-dependent content distribution request from
said terminal that receives said area-specific list
content; and
25 distribute said location-dependent content to said
terminal.

47. A program that causes a computer to:

acquire location information;
transmit said location information to another
apparatus;
receive said area-specific list content
5 corresponding to said location information transmitted
from said another apparatus;
display said area-specific list content;
output a distribution request for arbitrary
location-dependent content selected by a user from said
10 area-specific list content;
receive distribution of said location-dependent
content for which distribution is requested; and
display said location-dependent content.

15 48. A program that causes a computer to:
receive a broadcast reception request message
requesting relay distribution of broadcast content;
when said broadcast reception request message is
received, receive said broadcast content from a content
20 broadcast server;
perform relay distribution of said broadcast
content to a transmission source of said broadcast
reception request message;
receive a general content distribution request
25 message requesting relay distribution of general content;
when said general content distribution request
message is received, request said content communication
server to distribute said general content;

perform relay distribution of said general content received from said content communication server to a transmission source of said general content distribution request message.

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49. A program that causes a computer to:

receive broadcast content from a content broadcast server that distributes said broadcast content by means of carousel-type data broadcasting;

10 send a broadcast reception request message requesting relay transfer of said broadcast content;

receive said broadcast content transmitted in response to said broadcast reception request message;

15 receive general content from a content communication server that distributes said general content by means of communication;

transmit a general content distribution request message requesting relay transfer of said general content; and

20 display said general content received from said content communication server.

50. A computer-readable recording medium that stores the program according to claim 46.

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51. A computer-readable recording medium that stores the program according to claim 47.

52. A computer-readable recording medium that stores the program according to claim 48.

53. A computer-readable recording medium that stores the
5 program according to claim 49.